



## 1.0 Introduction

A traffic count was conducted from **October 21<sup>st</sup>, 2019** to **November 1<sup>st</sup>, 2019** on **Woodland Dr.** for both northbound and southbound directions. Vehicle speeds and traffic volumes were collected by a traffic trailer (model ATS-3). The purpose is to see if there are any speeding issue, raise safety awareness and help calm traffic by displaying speeds of approaching vehicles.

## 1.1 Location

The traffic trailer was placed on **Woodland Dr.** for both northbound and southbound directions. The trailer was placed at the side of the road to record the speed and volume of vehicles passing by. Table 1 below shows the location of the traffic trailer and data collection period.

**Table 1. Locations of Traffic Trailer**

Direction	Location	Period
Northbound	229 Woodland Dr., Midland, ON	11:00 am on October 21 <sup>st</sup> , 2019 – 4:00 am on October 25 <sup>th</sup> , 2019
Southbound	232 Woodland Dr., Midland, ON	5:00 am on October 25 <sup>th</sup> , 2019 – 2:00 pm on November 1 <sup>st</sup> , 2019

## 1.2 Traffic Trailer

The traffic trailer used was a model ATS-3 as shown in Figure 1. The traffic trailer is set to show the speed of approaching vehicles and display short messages depending on the speed. The traffic trailer uses radar to detect vehicles and collect data and grouped data into one-hour intervals.



**Figure 1. Traffic Trailer**

## 2.0 Speed Summary

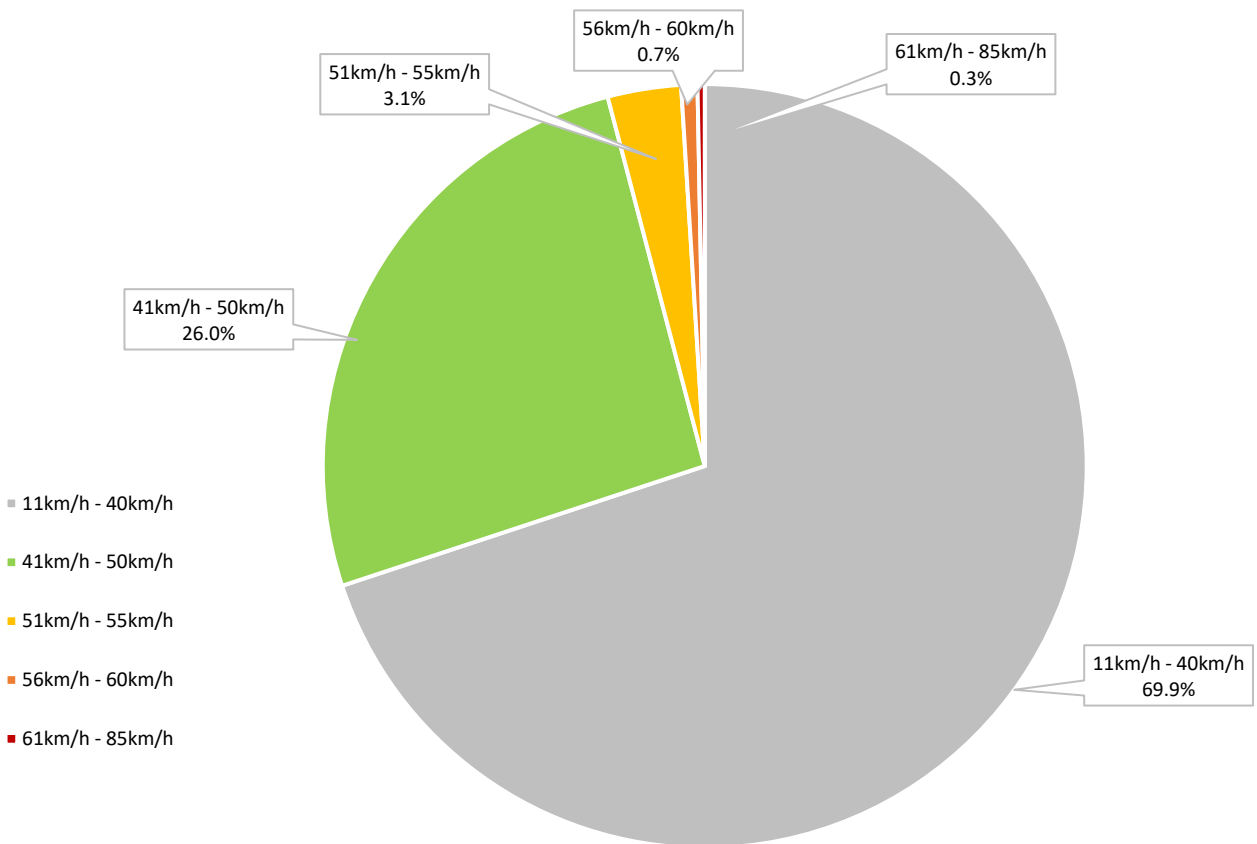
The posted speed limit on **Woodland Dr.** is 50 km/h. However, generally it is accepted that vehicles travelling up to *10km/h above* the posted speed limit are not considered to be speeding. Table 2. below shows an overall speed summary of the data collected for eastbound and westbound directions.

**Table 2. Speed Summary**

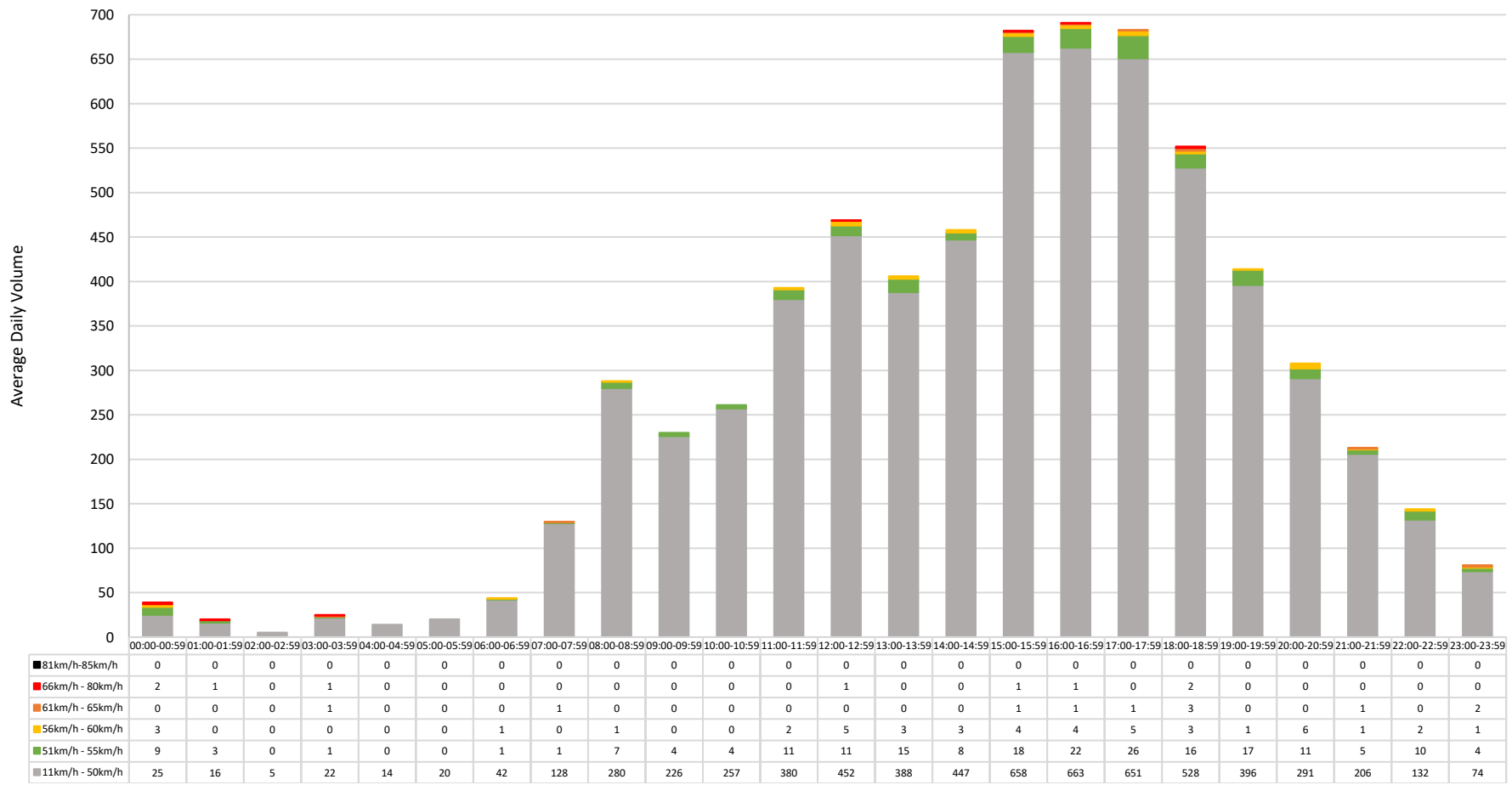
Direction	Average Speed (km/h)	Minimum Speed (km/h)	Maximum Speed(km/h)
Northbound	33.97	10	71
Southbound	36.17	10	75

## 2.1 Northbound Speed Analysis

Figure 2 and 3 below show the speed summary for the **Northbound Traffic**.



**Figure 2. Woodland Dr. Northbound Speed Breakdown**

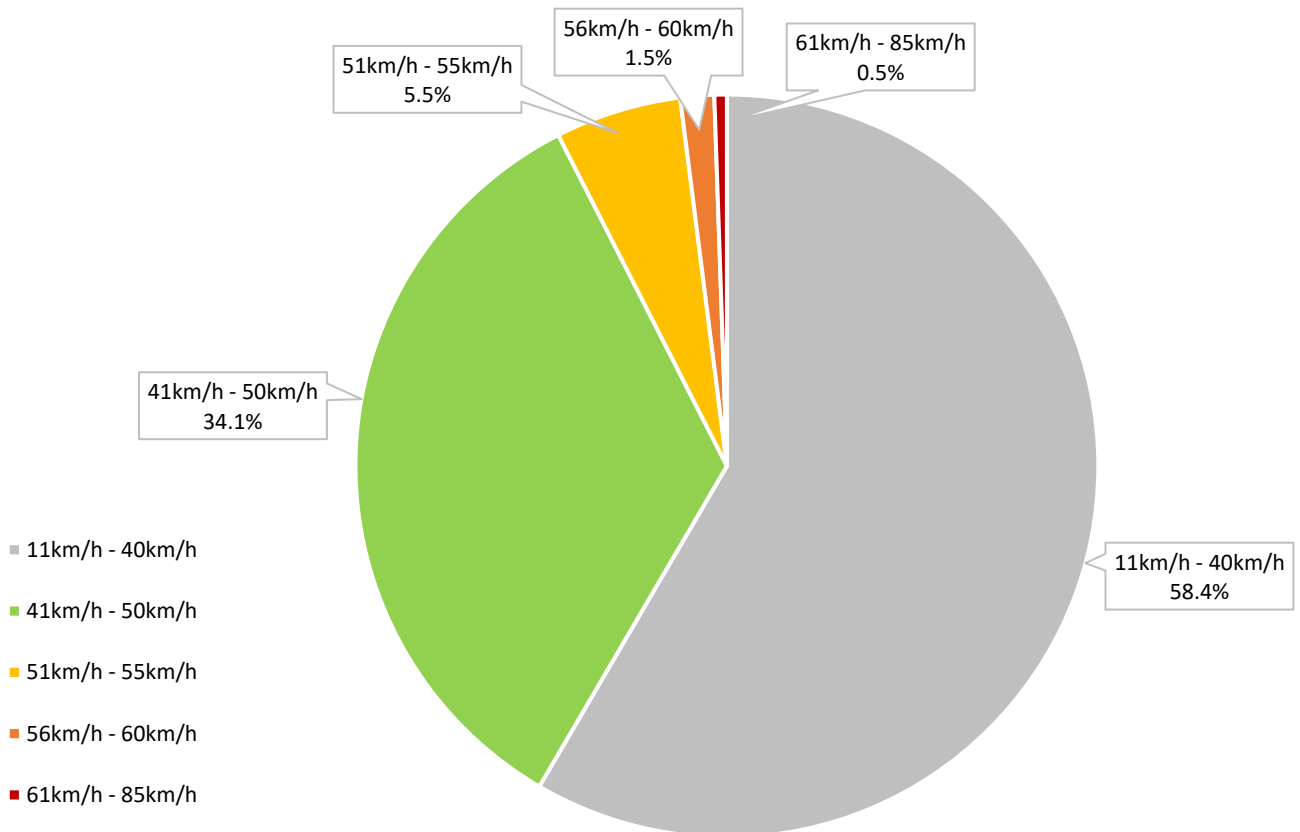


**Figure 3. Speed by Hour Analysis for Northbound**

From Figure 2 we can summarize that **95.9%** of vehicles were travelling below the posted speed limit, **3.8%** of vehicles were travelling between 51km/h and 60 km/h and **0.3%** of vehicles were travelling over 61 km/h. When we consider the accepted speed limit is 10km/h over the posted speed limit, we find that a total of **99.7%** of vehicles were travelling within the accepted speed limit in the Northbound direction.

## 2.2 Southbound Speed Analysis

Figure 4 and 5 below show the speed summary for the **Southbound traffic**.



**Figure 4. Woodland Dr. Southbound Speed Breakdown**

From Figure 4 we can summarize that **92.5%** of vehicles were travelling below the posted speed limit, **7%** of vehicles were travelling between 51km/h and 60km/h and **0.5%** of vehicles were travelling over 61 km/h. When we consider the accepted speed limit is 10km/h over the posted speed limit, we find **95.5%** of vehicles were travelling within the accepted speed limit in the Southbound direction.

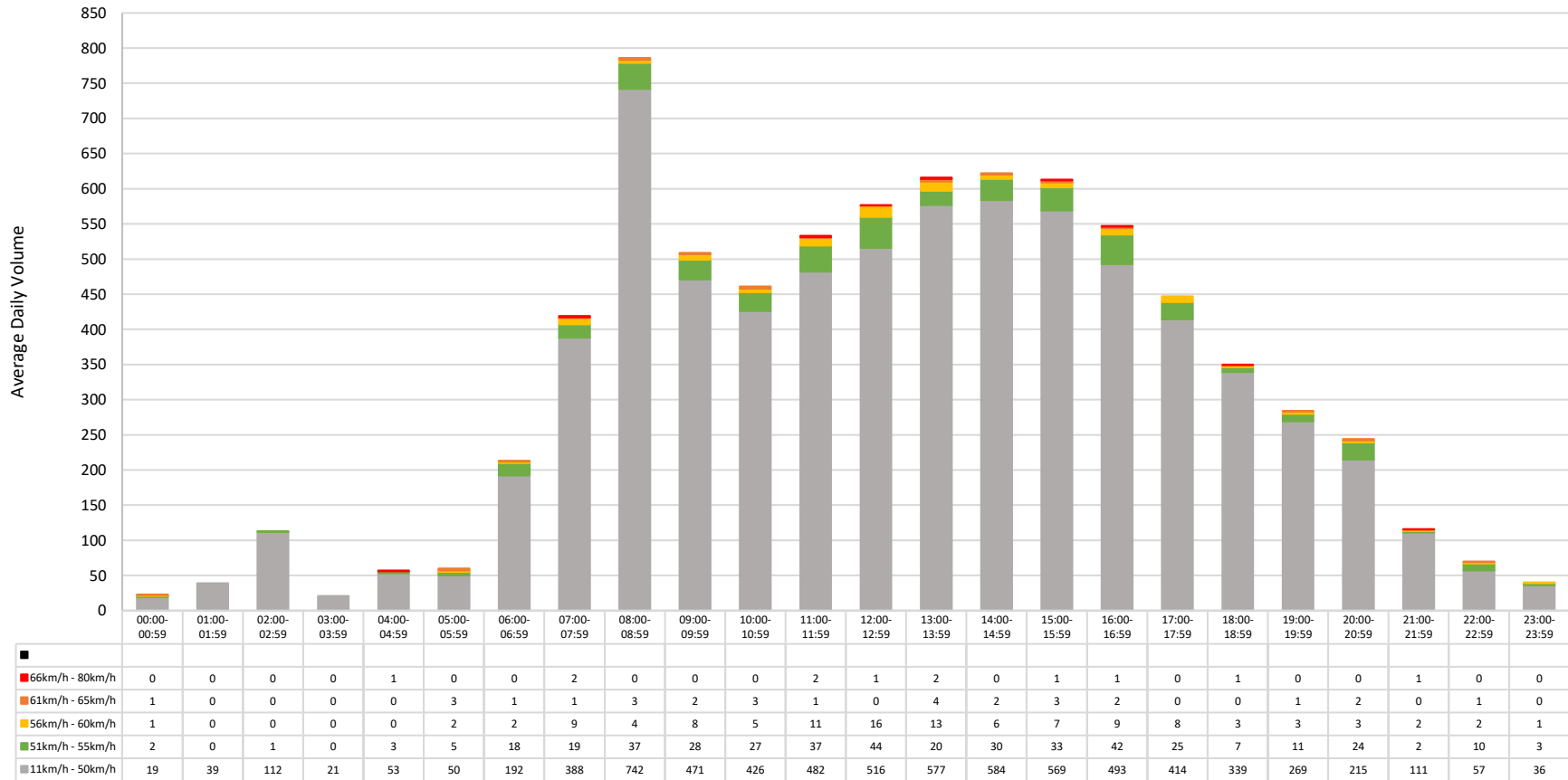


Figure 5. Speed by Hour Analysis for Southbound

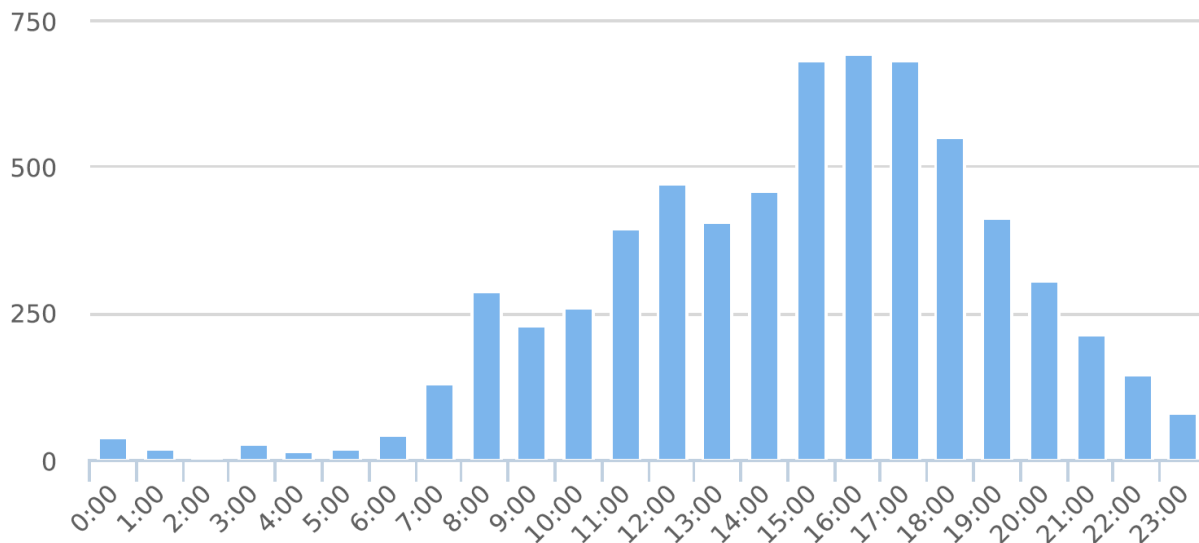
### 3.0 Traffic Volume

Table 3. shows the average daily volume on **Woodland Dr.** for Northbound and Southbound directions. Only the days when the traffic trailer was placed there for the full 24 hours are used in traffic volume analysis.

<b>Direction</b>	<b>Period</b>	<b>Average Daily Traffic Volume</b>
Northbound	Oct 21 <sup>st</sup> to Oct 24 <sup>th</sup> (Mon – Thu)	1,637
Southbound	Oct 25 <sup>th</sup> to Oct 31 <sup>st</sup> (Fri - Thu)	991

Traffic volumes are significantly higher in the Northbound direction on **Woodland Dr.** A portion of the data in the Southbound direction was collected during a weekend, and so brings the average volumes down. Despite this, the average daily volume on a weekday is still 30% lower than daily average volumes in the Northbound direction.

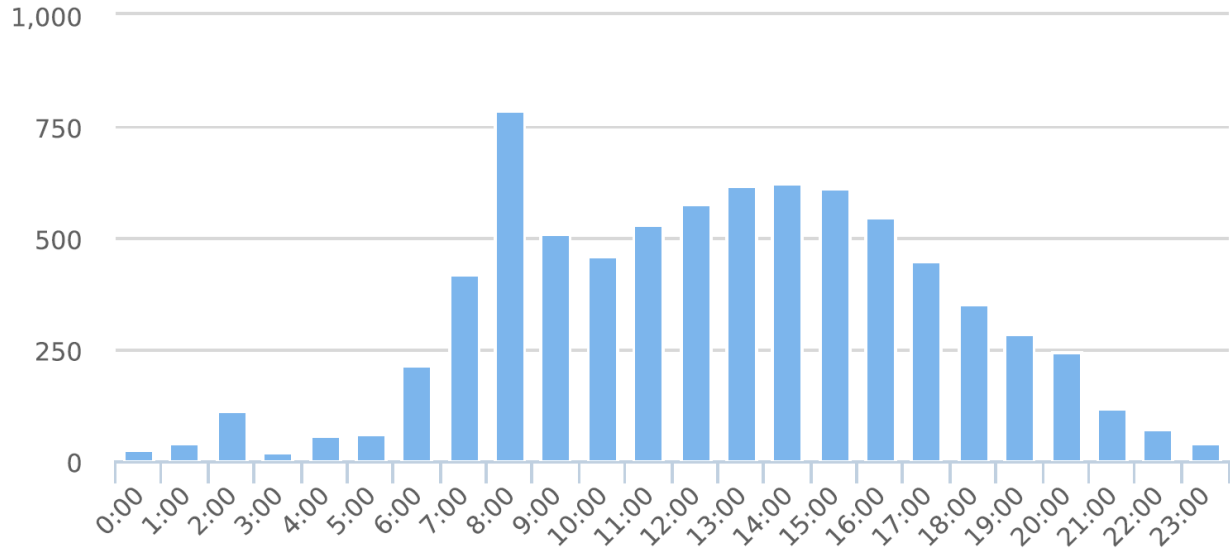
### 3.1 Northbound Volume by Hour



**Figure 6. Average Volume by Hour (Northbound)**

The data collected from **October 21<sup>st</sup> to October 25<sup>th</sup>** is used to analyze the average traffic volume at different times of day in the northbound direction (Figure 6). From the graph, Woodland Dr. has peak traffic volumes during afternoons leading up to rush hour (15:00 – 17:00).

### 3.2 Southbound Volume by Hour



**Figure 7. Average Volume by Hour (Southbound)**

The data collected from **October 25<sup>th</sup> to October 31<sup>st</sup>** is used to analyze the average traffic volume at different times of day in the southbound direction (Figure 7). From the graph, Woodland Dr. traffic volumes follow a normal curve with an outlier at 8:00 when the hourly volume increases substantially.

### 4.0 Conclusion

The traffic study conducted on **Woodland Dr.** for both Northbound and Southbound directions was successfully carried out on October 21<sup>st</sup> to November 1<sup>st</sup>, 2019. The speed analysis shows that 99.7% and 95.5% of vehicles (Northbound & Southbound respectively) were travelling **below** the posted speed limit and 0.3% and 0.5% of vehicles (Northbound & Southbound respectively) **exceeded** 61 km/h. Average speeds are similar in both directions, Southbound being slightly higher. Traffic volumes are 65% higher in the Northbound direction.